TOPOGRAPHIC SURVEY CONTROL POINT RECORD

| STATION LONG NAME | BA13 | |
|-----------------------|-------------|--|
| STATION NUMBER | BA13 | |
| 4 CHAR ID | BA13 | |
| COUNTRY | IRAQ | |
| LOCATION | AL FAW | |
| SURVEYING AGENCY | IGRS | |
| DATE (OF DESCRIPTION) | 09 AUG 2005 | |

| CONTENTS | YES | NO | NO OF PAGES |
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| FIELD COORDINATE VALUES | х | | 1 |
| OFFICE COORDINATE VALUES | Х | | 1 |
| STATION MONUMENT & SITE DETAILS | х | | 1 |
| STATION DIAGRAM | х | | 1 |
| ACCESS MAP | Х | | 1 |
| ACCESS DESCRIPTION | х | | 1 |
| APPROACH PHOTOGRAPHS | х | | 1 |
| CARDINAL POINT PHOTOGRAPHS | Х | | 2 |

RECORD OF VISITS

| DATE OF VISIT | NAME | UNIT | REMARKS |
|---------------|------|------|---------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

ADDITIONAL DETAILS/ENCLOSURES

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| | |
| | |

SECURITY CLASSIFICATION

FIELD COORDINATE VALUES

| STATION LONG NAME | BA13 |
|-------------------|------|
| 4 CHAR ID | BA13 |
| STATION NUMBER | BA13 |

| THIS STATION IS NEW | YES |
|--------------------------------------|-----|
| IDENTICAL / NEARLY IDENTICAL WITH | N/A |

FIELD VALUES FROM THE RECEIVER / HAND HELD GPS – IN WGS84

| LATITUDE N | 29° 58' 15.9" |
|----------------------|--------------------|
| LONGITUDE E | 048° 27' 07.1" |
| HT (M) | +7 |
| GRID ZONE DESIGNATOR | 39R |
| UTM / MGRS GRID | 39R TP 54137 18312 |
| SURVEYING AGENCY | IGRS |

| FIELD INPUT BY: SPC CHAMBERS | UNIT: IGRS | DATE: 09 AUG 2005 |
|-------------------------------|------------|-------------------|
| FIELD CHECKED BY: SGT. O'NEAL | UNIT:IGRS | DATE: 09 AUG 2005 |

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OFFICE COORDINATE VALUES

WGS 84 ADJUSTED VALUES AS AT: 25 Aug 05

| LATITUDE N | 29° 58' 15.71752" | |
|-----------------------------------|--------------------|--|
| LONGITUDE E | 048° 27' 07.04054" | |
| SPHEROIDAL HT (M) | -13.712 | |
| EGM96 GEOID MODEL HT (M) | -16.128 | |
| ORTHOMETRIC HT (M) | 2.416 | |
| VERTICAL DATUM | WGS 84 | |
| GEOID MODEL USED | EGM 96 | |
| RELATIVE TO | CORS STATIONS | |
| RELATIVE POSITION ACCURACY (M) | 0.018 | |
| RELATIVE HEIGHT ACCURACY (M) | 0.015 | |
| ADJUSTING AGENCY | OPUS | |
| ADJUSTMENT DATE | 25 AUG 2005 | |

LOCAL DATUM VALUES AS AT: 25 Aug 05

| SPHEROID | N/A |
|-----------------------|-----|
| PROJECTION | N/A |
| GRID | N/A |
| VERTICAL DATUM | N/A |
| LATITUDE N/S | N/A |
| LONGITUDE E/W | N/A |
| EASTINGS (M) | N/A |
| NORTHINGS (M) | N/A |
| SPHEROIDAL HT (M) | N/A |
| ORTHOMETRIC HT (M) | N/A |
| GRID ZONE DESIGNATOR | N/A |
| TRANSFORMATION AGENCY | N/A |
| TRANSFORMATION DATE | N/A |

| GRAVITY VALUE: N/A | TYPE OF STN: N/A | REF: N/A |
|--------------------|------------------|------------|
| | | |
| AIR PHOTO: N/A | REF: N/A | SCALE: N/A |
| IMAGERY: N/A | REF: N/A | SCALE: N/A |
| | • | • |

| OFFICE INPUT BY: LCPL COWARD | UNIT: IGRS | DATE: 25 AUG 2005 |
|--------------------------------|------------|-------------------|
| OFFICE CHECKED BY: LCPL DICKEN | UNIT: IGRS | DATE: 25 AUG 2005 |

STATION MONUMENT AND SITE DETAILS

STATION LONG NAME: BA13

STATION NUMBER: BA13 4 CHAR ID: BA13

LOCATION: AL FAW COUNTRY: IRAQ

STATION ADDRESS: N/A

TEL: N/A FAX: N/A

LAND OWNER ADDRESS: N/A

TEL: N/A FAX: N/A

TYPE OF MARK: HARN

CONDITION: GOOD

MARK SETTING: RE-BAR/FINE MARK NO OF REBARS 7

MONUMENT PHOTO / SKETCH



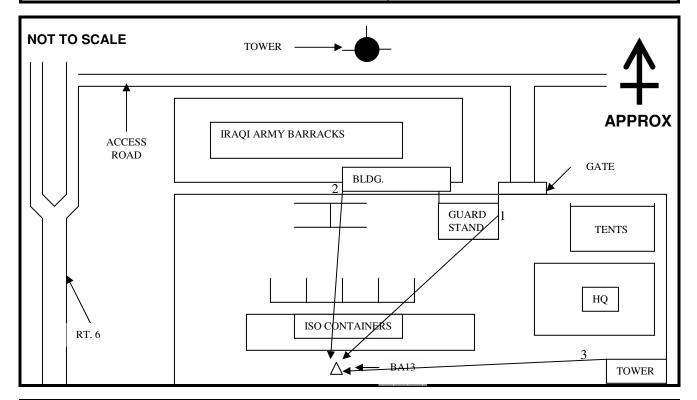
| PREPARED BY: SPC CHAMBERS | UNIT: IGRS | DATE: 09 AUG 2005 |
|---------------------------|------------|-------------------|
| CHECKED BY: SGT. O'NEAL | UNIT: IGRS | DATE: 09 AUG 2005 |

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REVISION DATE: 05 FEB 98 TOPO FORM 01d

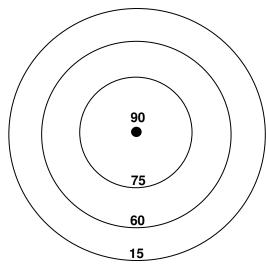
STATION DIAGRAM

STATION LONG NAME: BA13
STATION NUMBER: BA13
4 CHAR ID: BA13



| NO | DESCRIPTION | BRG/HORZ ANGLE | DISTANCE |
|----|--------------------------------|----------------|----------|
| 1 | MAIN GUARD POST/ ENTRANCE GATE | 318° | 24M |
| 2 | GUARD TOWER | 027° | 37M |
| 3 | IRAQI ARMY BUILDING | 308° | 27M |
| 4 | | | |

OBSCURITY DETAILS



| PREPARED BY: SPC CHAMBERS | UNIT: IGRS | DATE: 09 AUG 2005 |
|---------------------------|------------|-------------------|
| CHECKED BY: SGT. ONEAL | UNIT: IGRS | DATE: 09 AUG 2005 |
| | | |

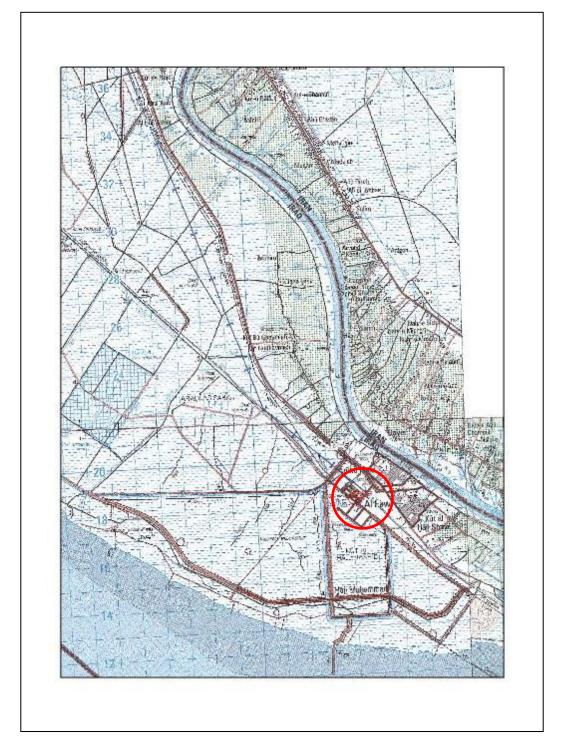
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REVISION DATE: 05 FEB 98 TOPO FORM 01e

ACCESS MAP

STATION LONG NAME: BA13
STATION NUMBER: BA13
4 CHAR ID: BA13

| MAP DETAILS | SERIES: K6614 | SHEET: 5649 |
|-------------|------------------|------------------------|
| EDITION: 3 | SCALE: 1:100,000 | GR: 39R TP 54137 18312 |



| PREPARED BY: SPC CHAMBERS | UNIT: IGRS | DATE: 09 AUG 2005 |
|---------------------------|------------|-------------------|
| CHECKED BY: SGT ONEAL | UNIT: IGRS | DATE: 09 AUG 2005 |

ACCESS DESCRIPTION

STATION LONG NAME: BA13
STATION NUMBER: BA13
4 CHAR ID: BA13

| MAP DETAILS | SERIES: K6614 | SHEET: 5649 |
|-----------------|------------------|------------------------|
| EDITION: 3-NIMA | SCALE: 1:100,000 | GR: 39R TP 54137 18312 |

To reach the survey marker BA13: Upon entering the city limits to the Southeastern Iraqi city, AL Faw. From junction of Route 6 and access road (near old power station) at grid location 39R TP 548 186, turn right onto access road, (proceed southwest) for approximately 300m, then enter Iraqi Army Camp, turn right after main gate and proceed 150m to another camp gate, upon entering proceed straight ahead approx 35m to far Hesko wall, station is located at grid 39R TP 54137 18312.

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APPROACH PHOTOGRAPHS

STATION LONG NAME: BA13

STATION NUMBER: BA13 4 CHAR ID: BA13

NEAR APPROACH FACING SOUTH



FAR APPROACH FACING SOUTH



TAKEN BY: SPC CHAMBERS DATE TAKEN: 09 AUG 2005

CARDINAL PHOTOGRAPHS

STATION LONG NAME: BA13

STATION NUMBER: BA13 4 CHAR ID: BA13

NORTH



SOUTH



TAKEN BY: SPC CHAMBERS DATE TAKEN: 09 AUG 2005

CARDINAL PHOTOGRAPHS

STATION LONG NAME: BA13

STATION NUMBER: BA13 4 CHAR ID: BA13

EAST



WEST



TAKEN BY: SPC CHAMBERS DATE TAKEN: 09 AUG 2005